

**REMARKS**

Reconsideration and allowance of this application, as amended, is respectfully requested.

This Amendment is in response to the Office Action dated December 1, 2004. Appreciation is expressed to the Examiner for the allowance of claims 14-25.

By the present Amendment, the Abstract has been amended to respond to the objection made thereto in paragraph 1 on page 3 of the Office Action. Specifically, the Abstract has been re-worded to fall within the 150 word maximum length noted in the Office Action. Also by the present amendment, independent claims 1 and 6 have been amended to clarify the invention. In addition, new claims 26-29 have been added to define further overall features of the present invention.

Briefly, the invention defined by claims 1-13 is directed to an improved quality monitoring system and method for a building structure in which a semiconductor integrated circuit device is built into the building structure itself. Referring, for example, to Fig. 1, a building structure BUL1 is shown which includes an inspection device RC1 and a plurality of monitoring chips SC1-10 which are buried in the concrete CON1 of the building structure. Fig. 2 shows a more detailed structure of the monitoring chip SC1, as discussed beginning on page 18 of the Specification. Fig. 3A and 3B show side 1 and side 2, respectively, of the monitoring chip SC1 shown in Fig. 2.

As discussed on page 19, line 6 et seq., in addition to the monitoring chips including a sensor for detecting a physical quantity related to a property of the building structure, the semiconductor integrated circuit (that is, the monitoring chip) also includes a chip such as BCHIP1 which applies power to the sensor. As

discussed, for example, on page 11, lines 6 et seq., page 25, line 5 et seq., page 30, line 12 et seq., page 31, line 17 et seq., the Abstract, etc., the power circuit only intermittently applies power to the sensor. The reason for this is that, in monitoring a building structure, it is not necessary to continuously detect a physical quantity. Instead, applicants have determined that periodic checks, using an intermittent power supply for the sensor, are sufficient to monitor the important physical quantities of the building structure. Thus, a significant reduction in power consumption can be achieved for the type of monitoring device which utilizes a power circuit.

Reconsideration and removal of the rejection of claims 1-13 under 35 USC §102(e) as being anticipated by Watters (USP 6,617,963) is respectfully requested. By the present amendment, both independent claims 1 and 6 have been amended to define the feature of the power circuit only intermittently applying power to the sensor, with the physical quantity being detected only when the power is applied to the sensor. As such, it is respectfully submitted that these amendments even more clearly emphasize the distinctions of the claimed inventions set forth in claims 1 and 6, and their respective dependent claims.

More specifically, in Fig. 1, the sensor 116 utilized by Watters is actually an unpowered passive device. This is clear, for example, from column 10, lines 19-21 of Watters which states:

"preferably, the sensing mechanism is an unpowered passive device that will store or release energy from a memory device that is polled later on."

More specifically, Watters teaches directly away from a powered semiconductor device in column 9, lines 29 et seq.:

"for many applications important to this invention such conventional active

sensors are not suitable because the required power may make them unduly complex and large. For example, powered devices often require their own battery or wiring to a central power source."

Thus, it is clear that, rather than trying to resolve problems with monitoring devices including a powered sensor, Watters takes a completely different approach and utilizes passive, unpowered, sensing devices.

As such, it is respectfully submitted that the present claimed invention defined by claims 1-13 represents an improved arrangement utilizing intermittent power supply for powered sensors. Watters fails to provide any teaching or suggestion of operating with powered sensors. Quite to the contrary as noted above, Watters adopts a completely different approach in using a completely different kind of sensor. Therefore, it is respectfully submitted that the claimed invention defined herein clearly distinguishes over Watters, and reconsideration and allowance of amended independent claims 1 and 6 and their respective dependent claims is respectfully requested.

If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of

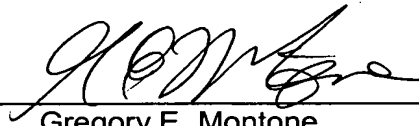
Application No.: 10/706,972  
Art Unit: 2863

Docket No.: 520.43279X00  
Page 19 of 19

this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 520.43279X00), and please credit any excess fees to such deposit account.

Respectfully submitted,  
**ANTONELLI, TERRY, STOUT & KRAUS, LLP**

By



Gregory E. Montone  
Reg. No. 28,141

GEM/dks

N:\520\43279X00\AMD\BT2881.DOC

1300 North Seventeenth Street, Suite 1800  
Arlington, Virginia 22209  
Telephone: (703) 312-6600  
Facsimile: (703) 312-6666